

Merck

Saisir le nom du produit, le numéro de lot, etc.

Toutes les photos (1)

Documents

FDS

COO/COA

Fiche des caractéristiques

Plus de documents »

P7012

► Sigma-Aldrich.

Pepsin from porcine gastric mucosa

★★★★★ (0)

lyophilized powder, ≥2,500 units/mg protein (E1%/280)

Synonyme(s):
Pepsin A, Pepsin from hog stomach

Numéro CAS:

9001-75-6

Numéro EC:

232-629-3

eCl@ss:

42010127

Numéro de classification (Commission des enzymes):

3.4.23.1 (BRENDA, IUBMB)

Numéro MDL:

MFCD00081840

NACRES:

NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
P7012-250MG	250 MG	✓ Only 5 left in stock (more on the way) Détails... Les fabricants de produits de diagnostic devraient utiliser un produit d'une autre qualité : SRE0001	68,90 €	- + i
P7012-1G	1 G	✓ Only 4 left in stock (more on the way) Détails...	132,00 €	- + i
P7012-5G	5 G	✓ Only 4 left in stock (more on the way) Détails...	563,00 €	- + i
P7012-10G	10 G	✓ Only 1 left in stock (more on the way) Détails...	1280,00 €	- + i

https://www.sigmaaldrich.com/FR/fr/product/sigma/p7012

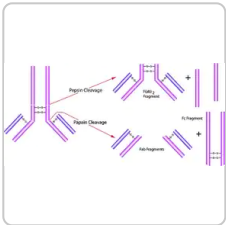
1/11

Référence	Conditionnement	Disponibilité	Prix	Quantité
P7012-25G	25 G	✔ Only 6 left in stock (more on the way)	Détails... 2 150,00 €	- + i
P7012-100G	100 G	✔ Only 1 left in stock (more on the way)	Détails... 6 350,00 €	- + i

[Demander une commande en gros](#)

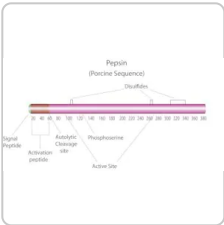
[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



Sigma-Aldrich
P6887
Pepsin from porcine gastric mucosa
lyophilized powder, ≥3,200 units/mg protein

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich
P7000
Pepsin from porcine gastric mucosa
powder, ≥250 units/mg solid

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Forme lyophilized powder

Niveau de qualité	300
specific activity	≥2,500 units/mg protein (E1%/280)
Poids mol.	35 kDa
Couleur	off-white to yellow
Solubilité	deionized water: soluble 10 mg/mL 10 mM HCl: soluble 4 mg/mL (Cold)
N° d'accèsion UniProt	P00791
application(s)	diagnostic assay manufacturing
Temp. de stockage	-20°C
Gene Information	pig ... LOC396892(396892)

Vous recherchez des produits similaires ? Visitez [Guide de comparaison des produits](#)

Catégories apparentées

[Proteases](#)

DESCRIPTION

Application

Pepsin is a peptidase used to digest proteins and is commonly used in the preparation of Fab fragments from antibodies. Pepsin, from porcine gastric mucosa, has been used to hydrolyze dry cervical samples in mice.

The enzyme from Sigma has been used in the digestion of crude wheat gliadin. It has been used along with other enzymes to demonstrate the effects of fixation and enzymatic digestion in immunohistochemical assays, using paraffin embedded tissue. It has been used for digestion (before using immunoperoxidase techniques) to reduce non-specific background staining in sections of bronchial tissues. The enzyme has also been used in the preparation of F(ab)₂ fragment from IgG.

Pepsin cleavage can be used to produce F(ab')₂ fragments of antibodies. [pepsin](https://www.sigma-aldrich.com/enzymeexplorer) at www.sigma-aldrich.com/enzymeexplorer.

Conditionnement

250 mg in poly bottle

1, 5, 10, 25, 100 g in poly bottle

Actions biochimiques/physiologiques

Pepsin hydrolyzes peptide bonds, not amide or ester linkages. Pepsin cleaves peptides with an aromatic acid on either side of the peptide bond. Sulfur-containing amino acids increase susceptibility to hydrolysis when they are close to the peptide bond. Pepsin preferentially cleaves at the carboxyl side of phenylalanine and leucine and at the carboxyl side of glutamic acid residues. Cleaves Phe-Val, Gln-His, Glu-Ala, Ala-Leu, Leu-Tyr, Tyr-Leu, Gly-Phe, Phe-Phe and Phe-Tyr bonds in the β chain of insulin

Pepsin is the major proteolytic enzyme produced in the stomach. It digests proteins through the cleavage of interior peptide linkages.

The enzyme does not cleave at valine, alanine, or glycine linkages. Z-L-tyrosyl-L-phenylalanine, Z-L-glutamyl-L-tyrosine, or Z-L-methionyl-L-tyrosine may be used as substrates for pepsin digestion. Pepsin is inhibited by several phenylalanine-containing peptides.

Preferential cleavage: hydrophobic and aromatic residues in P1 and P1' positions. Cleaves Phe-Val, Gln-His, Glu-Ala, Ala-Leu, Leu-Tyr, Tyr-Leu, Gly-Phe, Phe-Phe and Phe-Tyr bonds in the β chain of insulin

Définition de l'unité

One unit will produce a ΔA_{280} of 0.001 per min at pH 2.0 at 37°C, measured as TCA-soluble products using hemoglobin as substrate. (Final volume = 16mL. Light path = 1cm.)

Remarque sur l'analyse

E1%/280=14.7

Optimum pH is 2-4. Active in 4 M urea and 3 M guanidine HCl. Stable at 60 °C. Pepsin is irreversibly inactivated at pH 8.0 - 8.5.

Protein determined by E1%/280

Autres remarques

View more information on [pepsin](https://www.sigma-aldrich.com/enzymeexplorer) at www.sigma-aldrich.com/enzymeexplorer.

PRODUITS APPARENTÉS

Inhibiteur

P5318

Pepstatin A, microbial, ≥90% (HPLC)

[View Pricing](#)

P7626

Phenylmethanesulfonyl fluoride, ≥98.5% (GC)

[View Pricing](#)

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS07,GHS08

Mention d'avertissement

Danger

Mentions de danger

H315 - H319 - H334 - H335

Conseils de prudence

P261 - P264 - P271 - P280 -
P302 + P352 - P305 + P351 +
P338

Classification des risques

Eye Irrit. 2 - Resp. Sens. 1 -
Skin Irrit. 2 - STOT SE 3

Organes cibles

Respiratory system

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 1

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

Équipement de protection individuelle

dust mask type N95 (US),
Eyeshields, Faceshields,
Gloves

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

[Rechercher](#)

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COO)

[Rechercher](#)

Plus De Documents

[Enzyme Explorer](#)[FDS](#)

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

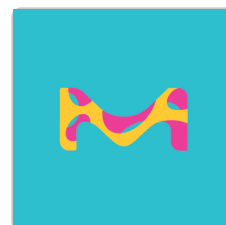


Sigma-Aldrich

P7545

Pancreatin from porcine pancreas

8 × USP specifications

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USP

1510051

Pepsin for assay

United States Pharmacopeia (USP) Reference Standard

[Consulter le prix et la disponibilité](#)

ARTICLES REVUS PAR DES PAIRS

Cervical remodeling during pregnancy and parturition: molecular characterization of the softening phase in mice.

Charles P Read et al.

Reproduction (Cambridge, England), 134(2), 327-340 (2007-07-31)

Cervical remodeling during pregnancy and parturition is a single progressive process that can be loosely divided into four overlapping phases termed softening, ripening, dilation/labor, and post partum repair. Elucidating the molecular mechanisms that facilitate all phases of cervical remodeling is

Dengue viruses and mononuclear phagocytes. I. Infection enhancement by non-neutralizing antibody.

S B Halstead et al.

The Journal of experimental medicine, 146(1), 201-217 (1977-07-01)

Cultured mononuclear peripheral blood leukocytes (PBL) from nonimmune human beings and monkeys are nonpermissive to dengue 2 virus (D2V) infection at multiplicities of infection of 0.001-0.1, but become permissive when non-neutralizing dengue antibody is added to medium. D2V infection occurred

A digestion technique for the reduction of background staining in the immunoperoxidase method.

M Reading

Journal of clinical pathology, 30(1), 88-90 (1977-01-01)

Hempseed Peptides Exert Hypocholesterolemic Effects with a Statin-Like Mechanism.

Chiara Zanoni et al.

Journal of agricultural and food chemistry, 65(40), 8829-8838 (2017-09-22)

This study had the objective of preparing a hempseed protein hydrolysate and investigating its hypocholesterolemic properties. The hydrolysate was prepared treating a total protein extract with pepsin. Nano HPLC-ESI-MS/MS analysis permitted identifying in total 90 peptides belonging to 33 proteins.

Enzymes of Molecular Biology

Sweeney, P.J., and Walker, J.M.

[Afficher tous les articles scientifiques apparentés](#)

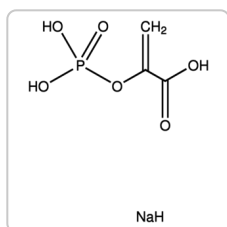
PROTOCOLES ET ARTICLES SCIENTIFIQUES

Protocoles

Enzymatic Assay of Pepsin (3.4.23.1)

This procedure may be used for determination of Pepsin activity using hemoglobin as the substrate. It is a spectrophotometric stop rate determination.

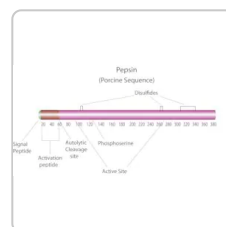
PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

P7002**Phospho(enol)pyruvic acid trisodium salt hydrate**

≥97% (enzymatic)

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

P7000**Pepsin from porcine gastric mucosa powder, ≥250 units/mg solid**[Consulter le prix et la disponibilité](#)

Évaluations



Soyez le premier à donner votre avis sur ce produit

Questions

Soyez le premier à poser une question

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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